

ABSTRACT

A process to synthesize substituted phenols such as those of the general formula $RR'R''Ar(OH)$ wherein R, R', and R'' are each independently hydrogen or any group which does not interfere in the process for synthesizing the substituted phenol including, but not limited to, halo, alkyl, alkoxy, carboxylic ester, amine, amide; and Ar is any variety of aryl or hetroaryl by means of oxidation of substituted arylboronic esters is described. In particular, a metal-catalyzed C-H activation/borylation reaction is described, which when followed by direct oxidation in a single or separate reaction vessel affords phenols without the need for any intermediate manipulations. More particularly, a process wherein Ir-catalyzed borylation of arenes using pinacolborane (HBPin) followed by oxidation of the intermediate arylboronic ester by OXONE is described.